Panel Discussion Notes

The following notes were taken during the individual panel discussions.

Panel 1 Production, Distribution & Use Environmental Issues

Chairperson Gordon Schremp, California Energy Commission
Members Glenn Giacobbe, Lyondell Chemical
Pam Pryor, Stratco, Inc.
Loren Beard, DaimlerChrysler Corporation
Bob Harley, University of California, Berkeley
Dean Simeroth, California Air Resources Board
Drew Laughlin, Energy Consultant
Neil Koehler, Kinergy LLC

Sheet 1

— There is a communication issue regarding the potential supply issues regarding gasoline.

Sheet 2

— Implications of neat EtOH spills at blending facilities.
— What is the role of LCA in analyzing fuels?

Sheet 3

— Gasoline consumption is quite inelastic to price.
— Connection between climate change and air quality—needs study.

Sheet 4

— No other oxygenate has gone through a multimedia environmental assessment.
— Are there permitting issues regarding refinery upgrades?

Sheet 5

— Are there possibilities for relaxing regulatory constraints to deal with supply issues? Options should be considered.

Sheet 6

Research needed:

— What fraction of HC are tailpipe vs. evaporative?

— This is not really known - is permeation issue

Supply disruption remains a concern as the population increases → increased vehicle efficiencies.

Sheet 7

EtOH	C_2 aldehydes
	winter time
MTBE	Out of gasoline, therefore, reduced ground water impacts

Distribution issues:

— Increased rail and marine transport

— Pipeline to Arizona could be helpful

Sheet 8

Environmental implications:

— Fuel changes

* EtOH + alkylates will go up
* Alkylates — increase use of acids and potential accidents (HF)

Panel 1 - Summary Notes

The following notes were taken during the panel discussion groups' report to the large group about lessons learned.

Sheet1

Fuel Changes
Logistics
Releases
— Marine alkylate + EtOH
— Pipeline EtOH (ship/onshore)
alkylate
— Railcars EtOH, pentanes
— Tanker trucks EtOH

Sheet 2

Alkylate expansion
Releases of HF and Sulfuric Acid
EtOH?

Sheet 3

Supply Problems
Potential to relax fuel standards
— Lead to increased emissions

Sheet 4

Air Quality Issues
Increased use of EtOH
— permeation, ↑ evaporation of E+OH
— ↑ acetaldehyde
R&D
— Tailpipe/evaporative
- Source of HC?
— GCC vs. ozone
— Waiver